

**Notice of Allowability**

Application No.

10/829,365

Examiner

David D. Le

Applicant(s)

LU ET AL.

Art Unit

3681

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 18 January 2006.
2. ☒ The allowed claim(s) is/are 1,4-10 and 21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This is the first Office action on the merits of Application No. 10/829,365, filed on 22 April 2004. Claims 1, 4-10 and 21 are pending.

### **Documents**

2. The following documents have been received and filed as part of the patent application:
  - Foreign Priority Document, received on 04/22/04

### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicants' attorney, Jun Y. Lee, on 03 April 2006.

The application has been amended as follows:

*Claim 1:*

Claim 1 has been rewritten as follows:

--A hybrid system with a controllable function of variable speed  
transmission adopting a plurality of power sources for power transmission by way  
of a complex combination of the power sources, comprising:  
at least one first electric power driving device being a primary power

source of the system;

at least one fuel driving device being a secondary power source of the system and started by combustible fuel;

an integrated power assistant device coupled to the fuel driving device selectively operable to start and restart the fuel driving device as needed while the first electric power driving device is providing primary driving power, to generate power responsive to the fuel driving device working, and to assistively and directly augment the driving power of the fuel driving device with additional driving power;

at least one automatic clutching device controlling clutching actions of the fuel driving device and the first electric power driving device and located between the fuel driving device and the first electric power driving device;

at least one continuously variable transmission device for generating driving actions, the continuously variable transmission further having another power source for actuation thereof, the continuously variable transmission device including a reconfigurable pulley assembly operable responsive to an electromagnetic clutch unit coupled thereto;

at least one system-controlling device controlling actions among the first electric power driving device, the fuel driving device, the integrated power assistant device, and the automatic clutching device; and

wherein the fuel driving device is disposed between the automatic clutching device and the integrated power assistant device for series connection directly therewith; and, the first electric power driving device is connected to the fuel driving device, the automatic clutching device, and the continuously variable transmission device in series.--

Claim 8:

- Line 3, “gasoline, diesel” has been amended as --gasoline and diesel--.

Claims 12-19 and 22:

- Claims 12-19 and 22 have been cancelled.

Claim 21:

- Line 4, “a front pulley and a rear pulley” has been amended as --a front pulley assembly and a rear pulley assembly--;
- Line 5, “pulleys including opposed movable and fixed pulleys” has been amended as --pulley assemblies including opposed movable and fixed pulleys--;
- Line 6, “front and rear pulleys” has been amended as --front and rear pulley assemblies--;
- Line 7, “front and rear pulleys” has been amended as --front and rear pulley assemblies--.

***Allowable Subject Matter***

4. Claims 1, 4-10 and 21 are allowed.
5. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to show or render obvious a hybrid system comprising an arrangement of at least one first electric power driving device, at least one fuel driving device, an integrated power assistant device, at least one automatic clutching device, at least one continuously variable transmission device, and at least one system-controlling device, as recited in the claim; specifically, wherein the continuously variable transmission device includes an electromagnetic clutch unit and another power source as part of the arrangement of the hybrid system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

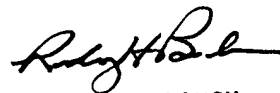
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

Art Unit: 3681

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ddl

  
RODNEY H. BONCK  
PRIMARY EXAMINER  
ART UNIT 3681